WHAT IS CLAIMED IS:

1   1.   A method for increasing the spectral efficiency of

2 a wireless telecommunications system, said method comprising

3 the steps of:

4   dividing a plurality of channels within a cell of said

5 wireless telecommunications system into a plurality of

6 logical groups;

7   mapping a first group of said plurality of logical

8 groups onto a first plurality of radio resources; and

9   mapping at least one other group of said plurality of

10 logical groups onto a second plurality of radio resources,

11 at least one radio resource in said second plurality of radio

12 resources corresponding to at least one radio resource in

13 said first plurality of radio resources.

1   2.   The method according to claim 1, wherein each of

2 said plurality of logical groups has a different radio

3 frequency hopping sequence.

1   3.   The method according to claim 1, wherein each of

2 said plurality of logical groups has a different training

3 sequence.

1   4.   The method according to claim 1, wherein each of

2   said plurality of logical groups being spatial separated.

1   5.   The method according to claim 1, wherein said first

2   plurality of radio resources and said second plurality of

3   radio resources are substantially the same.

1   6.   The method according to claim 1, further comprising

2   the step of:

3   enforcing silence on an interfering channel within said

4   plurality of logical groups.

1   7.   The method according to claim 6, wherein said step

2   of enforcing silence is based on a quality of service (QoS)

3   measure.

1   8.   The method according to claim 1, wherein a timing

2   offset is applied between said plurality of logical groups

3   mapped onto said plurality of radio resources.

1   9. The method according to claim 1, wherein said steps

2 of mapping said first group and mapping said at least one

3 other group are performed according to a communication

4 measure.

1   10. The method according to claims 9, wherein said

2 communication measure is selected from the group consisting

3 of: current load in said plurality of logical groups,

4 prevailing quality of active service sessions, Quality-of-

5 Service requirements of service sessions, directions of users

6 with respect to a base station, distance of users from a base

7 station, path loss of users from a base station, users

8 received signal strengths, geographical distance from users

9 to a cell border, radio distance from users to a cell border

10 and any combination of communication measures.

1   11. A wireless telecommunications system for increasing

2   the spectral efficiency of a wireless telecommunications

3   system, said system comprising:

4   a divider for dividing a plurality of channels within

5   a cell of said wireless telecommunications system into a

6   plurality of logical groups; and

7   mapping means for mapping said plurality of logical

8   groups onto a plurality of radio resources.

1   12. The system according to claim 11, wherein said

2   mapping means comprises flexibly mapping said plurality of

3   logical groups onto said plurality of radio resources.

1   13. The system according to claim 11, further

2   comprising implementing means for implementing different

3   radio frequency hopping sequences in each of said plurality

4   of logical groups.

1   14. The system according to claim 11, further

2   comprising means for using different training sequences in

3   each of said plurality of logical groups.

1   15. The system according to claim 11, further

2   comprising separating means for spatially separating said

3   plurality of logical groups.

1   16. The system according to claim 11, further

2   comprising silencing means for enforcing silence for an

3   interfering channel.

1   17. The system according to claim 16, wherein said

2   silencing means comprises enforcing silence on a user based

3   on a quality of service (QoS) measure.

1   18. The system according to claim 11, further

2   comprising offset means for applying a time offset between

3   said plurality of logical groups mapped on said plurality of

4   radio resources.

1   19. The system according to claim 11, further

2   comprising determining means for determining a communication

3   measure used to aid said mapping means in mapping said

4   plurality of logical groups onto said plurality of radio

5   resources efficiently, thereby maximizing the performance of

6   the system.